

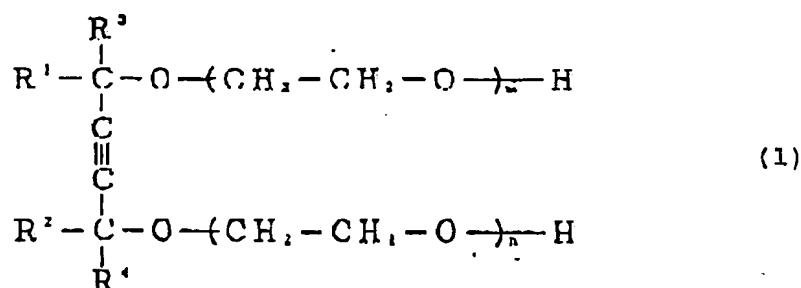
U 013698-2

WHAT IS CLAIMED IS:

1. An aqueous ink composition comprising at least water, a pigment dispersed by polymer, a sulfonyl group-containing (co)polymer, and an ultra-penetrating agent.
2. The aqueous ink composition according to claim 1, wherein the sulfonyl group-containing (co)polymer is present in the form of an emulsion.
3. The aqueous ink composition according to claim 1, wherein the sulfonyl group-containing (co)polymer is at least one of a diene-based, sulfonyl group-containing (co)polymer and a non-diene-based, sulfonyl group-containing (co)polymer.
4. The aqueous ink composition according to claim 3, wherein the non-diene-based, sulfonyl group-containing (co)polymer is an acryl-based, sulfonyl group-containing (co)polymer.
5. The aqueous ink composition according to claim 4, wherein the pigment dispersed by polymer is a pigment dispersed in an aqueous medium by an acrylic (co)polymer having an acid value of 100 or more.

6. The aqueous ink composition according to claim 1, wherein the ultra-penetrating agent is at least one compound selected from the group consisting of acetylene glycol compounds, acetylene alcohol compounds, and glycol ether compounds.

7. The aqueous ink composition according to claim 1, wherein the ultra-penetrating agent is a combination of a compound represented by the following formula (1) and triethylene glycol monobutyl ether:



wherein, $0 \leq m + n \leq 50$, and R^1 , R^2 , R^3 and R^4 each independently is an alkyl group.

8. A recording process comprising recording an image by an ink jet recording process using an aqueous ink composition according to claim 1.

9. An ink cartridge containing an aqueous ink composition according to claim 1.

10. A recorded article having an image recorded by an aqueous ink composition according to claim 1.

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
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